

**ABSTRACT OF THE DISCLOSURE**

In one aspect, the present invention is directed to an electric toothbrush. The toothbrush includes a housing, an electric motor, a first transmission and a second transmission. The electric motor is connected to the housing has a motor output member for rotation about a motor output axis. The first transmission is connected to the housing, and converts rotational movement from the motor output member into rotational reciprocating movement at a first average angular speed. The second transmission is linked to the first transmission, and converts rotational reciprocating movement from the first transmission into rotational reciprocating movement at a second average angular speed about a second transmission output axis that is parallel to the motor output axis. The second transmission drives an output member to reciprocate at the second average angular speed about the second transmission output axis. A brush head is removably connectable to the output member.